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Remarks

This Application has been carefully reviewed in light of the Office Action mailed October 22, 2003. Applicants appreciate the Examiner's consideration of the Application. Applicants have amended Claims 1-2, 4, 8-9, 12-13, 15-17, 20-22, 26-27, 30-31, 33-35, 38, 48-49, and 51-53 to clarify certain distinguishing features already present in Applicants' claims. These amendments are not considered necessary for patentability and have not introduced any new matter.

I.   Summary of Telephonic Interview

Applicants' attorney, Chad D. Terrell, conducted a telephonic interview with Examiner Nguyen on January 20, 2004. Pursuant to M.P.E.P. § 713.04, Applicants submit this summary of the telephonic interview to record Applicants' understanding of the substance of the interview. If Applicants' understanding is inaccurate, notice of such is appreciated.

Attorney for Applicants thanks the Examiner for the courtesy of his telephonic interview. During the telephonic interview, Applicants traversed the Examiner's rejections under 35 U.S.C. § 103(a). With respect to independent Claim 1, Applicants discussed the *Yamada* and *Chiu* references. Applicants discussed the reasons why the proposed *Yamada-Chiu* combination does not teach, suggest, or disclose several limitations in Applicants' Claim 1. Although no agreement was reached, the Examiner agreed to consider Applicants' arguments and amendments, articulated in this Response, with respect to the rejections.

II.   Applicants' Claims are Allowable Over the Section 103 Rejections

The Examiner rejects Claims 1-5, 7-23, 25-40, 42-45, and 47-55 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,415,313 to Yamada, et al. ("*Yamada*"), in view of U.S. Patent 6,597,689 to Chiu, et al. ("*Chiu*"). Applicants respectfully disagree.

At the outset, Applicants note their belief that they could antedate *Yamada* based at least on Applicants' date of conception prior to July 9, 1999 and subsequent diligence up to the January 20, 2000 filing date of the Application. While Applicants have chosen not to do

so in the present Response due to the clear distinctions between Applicants' claims and the proposed *Yamada-Chiu* combination discussed below, Applicants reserve the right to antedate *Yamada* in a future Response or on Appeal, if appropriate.

Applicants respectfully submit that *Yamada*, whether considered alone, in combination with *Chiu*, or in combination with knowledge of those of ordinary skill in the art at the time of invention fails to teach, suggest, or disclose at least the following limitations recited in Claim 1:

- a memory coupled to the access server and operable to store:
  subscriber information for the plurality of subscribers; and
  path information for the plurality of subscribers, wherein the subscriber information for the particular subscriber is indexed by the path information for the particular subscriber, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server; and
- a processor coupled to the memory and operable to:
  compare the path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber; and
  determine subscriber information for communication to the particular subscriber based on the comparison.

Applicants address each of these distinctions below.

A. The Proposed *Yamada-Chiu* Combination Fails to Teach, Suggest, or Disclose "Path Information" as Recited in Claim 1

Yamada fails to teach, suggest, or disclose "a memory coupled to the access server and operable to store . . . path information for the plurality of subscribers . . . the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server," as recited in Claim 1 as amended.

In general, *Yamada* discloses a communication quality control system capable of transferring a datagram in the optimum communication quality suitable for the communication attributes derived from the datagram. (Column 2, Lines 14-17). As

disclosing portions of the above-recited limitation, the Examiner refers to Figure 8 of *Yamada*, which merely illustrates an example quality of service (QOS) table accessible to determine quality information of a connection corresponding to the attribute information of the communication. (Column 11, Lines 10-12). The QOS table of Figure 8 in *Yamada* includes columns labeled Source IP (the IP address of the source of a communication), Destination IP (the IP address of the destination of a communication), Server, User-Agent (a client program name and version), From (email address of a user), and so on. (*See* Figure 8 and Column 14, Lines 13-25). Incoming messages may include certain of this information as attributes in a header.

The only virtual circuit information in the QOS table of Figure 8 is a *destination* VPI. This destination VPI is determined by consulting a routing table (*see* Figure 9), using the *Destination* IP specified in the header of an incoming message. The *destination* VPI has nothing to do with "path information for the plurality of subscribers . . . the path information for the particular subscriber identifying *a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server*," as recited in Claim 1 as amended.

At best, the QOS table of Figure 8 in *Yamada* suggests that a Source IP address may be associated with a user based on the user's email address. Even if this could be termed an "assignment" of a Source IP address to a particular subscriber, *Yamada* would still fail to teach, suggest, or disclose "path information for the plurality of subscribers . . . the path information for the particular subscriber identifying *a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server*," as recited in Claim 1 as amended. For example, a particular Source IP address could use any number of virtual circuits to communicate a message in *Yamada*. Thus, merely storing a Source IP address associated with a particular user does not teach, suggest, or disclose the "path information" recited in Claim 1. **There simply is no pre-assignment of a virtual circuit to a particular subscriber for communicating with the access server in *Yamada*.** *Chiu* fails to account for these deficiencies of *Yamada*.

B.   The Proposed *Yamada-Chiu* Combination Fails to Teach, Suggest, or Disclose "Subscriber Information" Indexed by "Path Information"

The Examiner acknowledges, and Applicants agree, that *Yamada* fails to disclose "wherein the subscriber information for the particular subscriber is indexed by the path information for the particular subscriber," as recited in Claim 1. (Office Action, Page 3). However, the Examiner argues that *Chiu* discloses this limitation. Applicants respectfully disagree.

In general, *Chiu* discloses a switched virtual circuit (SVC) system and method. (Title). The portion of *Chiu* cited by the Examiner as disclosing this limitation refers to a proxy signaling table, an ISP table, and a Connect Info table. (*See* Office Action, Page 3; Column 81, Line 57-Column 82, Line 8). The tables cross-reference each other and are accessed to create a desired proxy SVC connection between an xDSL connected device (e.g., a PC with a modem) and an internet service provider (ISP). (Column 78, Lines 43-47). As shown in Figure 30 of *Chiu*, which illustrates an example proxy signaling table, columns in the proxy signaling table include ifIndex, VPI, VCI, ISP ID, Connect Info ID, and so on. When a subscriber associated with an xDSL device wants a proxy SVC connection, a new entry is added in the proxy signaling table, including a VPI/VCI on which a communication from the subscriber is received. (*See* Column 87, Lines 23-25). Thus, while the proxy signaling table in Figure 8 includes entries for a particular VPI/VCI combination on which a communication is received, this in no way teaches, suggests, or discloses the "path information" recited in Claim 1, which identifies "a virtual circuit that is *pre-assigned to the particular subscriber.*" Because *Chiu* fails to disclose the "path information" as recited in Claim 1, *Chiu* necessarily fails to teach, suggest, or disclose "wherein subscriber information for the particular subscriber is indexed by the path information for the particular subscriber," as recited in Claim 1.

Additionally, the proxy signaling table includes information which links to the ISP table and to the Connect Info table. (*See* Figure 30; Column 79, Lines 35-38). A particular VPI/VCI entry in the proxy signaling table includes a corresponding entry in the ISP ID column, which maps to an entry in a relevant ISP table. (*See* Column 81, Lines 57-67). Each

row in the ISP table includes a list of ISP addresses that can be used for call establishment and release. (*See* Column 82, Lines 18-23). Similarly, the Connect Info ID for a particular VPI/VCI entry in the proxy signaling table maps to the relevant Connect Info table to obtain call connection/release information. (Column 82, Lines 1-8). Thus, the proxy signaling table of *Chiu* seems to provide nothing more than a mapping such that if a communication is received on a particular VPI/VCI, the proxy connection will be made to the ISP specified in the ISP ID column, and particularly to an ISP address specified in the ISP table to which the ISP ID maps. This further illustrates the deficiencies of *Chiu* in disclosing "path information" as recited in Claim 1, which identifies "a virtual circuit that is *pre-assigned to the particular subscriber*." At best, the VPI and VCI in Figure 30 of *Chiu* are merely associated with a ISP for connecting making proxy connection – the VPI and VCI are never pre-assigned to a particular subscriber as recited in Applicants' Claim 1.

C. **The Proposed *Yamada-Chiu* Combination Fails to Teach, Suggest, or Disclose a Processor Operable to "Compare the Path Information Identifying the Virtual Circuit Assigned to the Particular Subscriber to the Particular Virtual Circuit Used to Receive the Communication from the Particular Subscriber"**

In the Office Action, the Examiner cites *Yamada* alone as disclosing a processor operable to "compare the path information and the particular virtual circuit used to receive the communication from the particular subscriber," as recited in Claim 1 prior to the amendments presented in the current Response. Applicants note that the Examiner acknowledges, and Applicants agree, that *Yamada* does not disclose an access server "operable to receive a communication from a particular subscriber using a particular one of a plurality of virtual circuits associated with the communication network," as recited in Claim 1. (Office Action, Page 3). Applicants pose the question: How could *Yamada* possibly disclose a processor operable to "compare the path information and *the particular virtual circuit used to receive the communication from the particular subscriber*" since *Yamada* fails to even disclose an access server operable to "receive a communication from *a particular subscriber using a particular one of a plurality of virtual circuits* associated with the communication network," as recited in Claim 1? This inconsistency seems to illustrate that

the Examiner has merely pieced together disjointed portions of unrelated references to reconstruct Applicants' claims.

In any event, *Yamada* fails to teach, suggest, or disclose a processor operable to "compare *the path information for the particular subscriber* to the particular virtual circuit used to receive the communication from the particular subscriber," as recited in Claim 1 as amended. As discussed above, nowhere does *Yamada* teach, suggest, or disclose the "path information" as recited in Claim 1 (e.g., that identifies "a virtual circuit that is pre-assigned to the particular subscriber"). Thus, *Yamada* necessarily fails to disclose a comparison using the stored "path information" recited in Claim 1.

Furthermore, the Examiner equates path deciding unit 160 of *Yamada* to the processor recited in Claim 1. (*See* Office Action, page 2). Assuming, for the sake of argument only, that this equation is possible, nowhere does path deciding unit 160 compare "path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber," as recited in Claim 1. Path deciding unit 160 of *Yamada* merely determines the destination of a datagram by referencing a path table (i.e., a routing table), which includes a set of destination subnet addresses and corresponding destination VPIs. (*See* Figure 9 and Column 15, Lines 31-36). Path deciding unit 160 simply examines the destination IP address specified in a received datagram and determines, according to the path table, the destination VPI to use according the path table. Thus, path table is nothing more than a routing table.

The portion of *Yamada* cited by the Examiner as reciting the "comparison" limitation in Claim 1 does not teach, suggest, or disclose any sort of comparison of "path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber." (*See* Column 13, Lines 19-45). The system disclosed in *Yamada* receives a communication for an HTTP session, which is divided into a number of datagrams. (*See* Column 13, Lines 3-7). In the cited portion of *Yamada*, a connection communication quality control unit stores a set of connection information and communication quality in a connection/communication quality table. (Column 13, Lines 33-

36). The connection information is simply the Source IP address and the Destination IP address, as discussed above with reference to the QOS table. (*See* Column 10, Lines 33-43). The communication quality is determined based on accessing the QOS table to determine the communication quality for that connection information. (*See* Figure 8; Column 13, Lines 19-29). When receiving subsequent datagrams within the HTTP session, the connection/communication quality table is accessed merely based on the connection information (Source IP address and Destination IP address) to obtain the communication quality so that the datagram can be transferred at the same quality. (*See* Column 13, Lines 37-45).

Nowhere in any of this cited portion is there "a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server." In fact, the only virtual circuit information discussed in the cited portion of *Yamada* is a destination VPI. Thus, *Yamada* fails to teach, suggest, or disclose the "path information" recited in Claim 1 as amended. Because *Yamada* does not teach, suggest, or disclose "path information," *Yamada* necessarily fails to teach, suggest, or disclose a processor operable to "compare *the path information for the particular subscriber* to the particular virtual circuit used to receive the communication from the particular subscriber," as recited in Claim 1. *Chiu* fails to account for these deficiencies of *Yamada*.

> **D. The Proposed *Yamada-Chiu* Combination Fails to Teach, Suggest, or Disclose a Processor Operable to "Determine Subscriber Information for Communication to the Particular Subscriber Based on the Comparison"**

The Examiner acknowledges, and Applicants agree, that *Yamada* fails to disclose a processor operable to "determine subscriber information for communication to the particular subscriber based on the comparison," as recited in Claim 1. (Office Action, Page 3). However, the Examiner argues that *Chiu* discloses this limitation. Applicants respectfully disagree.

Applicants note that the Examiner proposes that *Yamada* discloses a processor operable to "compare the path information and the particular virtual circuit used to receive the communication from the particular subscriber," as recited in Claim 1 prior to the

amendments presented in the current Response. (*See* Office Action, Page 3) The Examiner then proposes that *Chiu* discloses a processor operable to "determine subscriber information for communication to the particular subscriber *based on the comparison*," as recited in Claim 1. (*See* Office Action, Page 3) Applicants pose the question: How could *Chiu* disclose determining subscriber information for communication to the particular subscriber *based on the comparison* when "the comparison" on which the determination is made is, according the Examiner, disclosed in *Yamada* – an entirely different reference? This inconsistency again seems to illustrate that the Examiner has merely pieced together disjointed portions of unrelated references to reconstruct Applicants' claims.

In any event, *Chiu* fails to teach, suggest, or disclose a processor operable to "determine subscriber information for communication to the particular subscriber based on the comparison," as recited in Claim 1. In fact, the cited portions of *Chiu* do not even mention communicating anything to a particular subscriber. The cited portions of *Chiu* merely disclose information relating to the ISP table discussed above. (*See* Column 82, Lines 19-56) An ISP table merely provides a list of ISP addresses for making a proxy connection to the ISP. However, this in no way teaches, suggests, or discloses a processor operable to "determine subscriber information for communication to the particular subscriber based on the comparison," as recited in Claim 1, particularly in light of the fact that "the comparison" is wholly lacking from *Chiu*.

E.   The Proposed *Yamada-Chiu* Combination Cannot Be Made

The rejection of Applicants' claims is also improper because the Examiner has not shown the required teaching, suggestion, or motivation in *Yamada*, *Chiu*, or in the knowledge generally available to those of ordinary skill in the art at the time of the invention to combine or modify the *Yamada* or *Chiu*. The rejected claims are allowable for at least this reason.

The M.P.E.P. sets forth the strict legal standard for finding obviousness based on a combination of references. According to the M.P.E.P., "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to

one of ordinary skill in the art" at the time of the invention. M.P.E.P. 2143.01. The "fact that references <u>can</u> be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification. *Id.* (emphasis in original).

The governing Federal Circuit case law makes this strict legal standard even more clear.[1] According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine . . . prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000)). "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). However, the "range of sources available . . . does not diminish the requirement for actual evidence." *Id.* In *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that proper evidence of a teaching, suggestion, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

> Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.* Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999 (quoting *W.L. Gore & Assoc., Inv. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)) (emphasis added) (citations omitted).[2] Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the

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[1] Note M.P.E.P. 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

[2] *See also In Re Jones*, 958 F.2d 347, 351 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.).

proposed combination is not sufficient to establish obviousness. *See In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

With regard to the proposed *Yamada-Chiu* combination, the Examiner indicates that "It would have been obvious to a person of skill in the art at the time the invention was made to combine the teaching of Yamada and Chiu because Chiu's teaching would allow information to safely communicate from end to end." (Office Action, Page 3). First, Applicants are not clear as to what "safety" would be provided to the system disclosed in *Yamada* assuming it could be modified to include that system disclosed in *Chiu*. While both references discuss VPIs and VCIs, nowhere does *Yamada* mention anything about making proxy calls in an SVC as disclose in *Chiu*, and nowhere do the cited portions of *Chiu* mention anything about maintaining transfer quality in the manner disclosed in *Yamada*. Thus, Applicants respectfully submit that the Examiner's proposed combination of *Yamada* with *Chiu* appears to be merely an attempt, with the benefit of hindsight, to reconstruct Applicants' claims and is unsupported by the teachings of *Yamada* and *Chiu*. This position is further evidenced by the inconsistencies present throughout the rejection and discussed above.

All of Applicants' arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the *Yamada* and *Chiu* references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. The example distinctions discussed by Applicants are sufficient to overcome the obviousness rejections.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claim 1 and its dependent claims. For at least the reasons stated with regard to Claim 1, Applicants respectfully request reconsideration and allowance of independent Claims 12, 20, 30, 38, 43, and 48, together with their dependent claims.

Claims 2-5 and 7-11 (which depend from Claim 1), Claims 13-19 (which depend from Claim 12), Claims 21-23 and 25-29 (which depend from Claim 20), Claims 31-37 (which depend from Claim 30), Claims 39-40 and 42 (which depend from Claim 38), Claims 44-45

and 47 (which depend from Claim 43), and Claims 49-55 (which depend from Claim 48 depend from allowable independent claims and are allowable for at least this reason. In addition, Claims 2-5, 7-11, 13-19, 21-23, 25-29, 31-37, 39-40, 42, 44-45, 47, and 49-55 recite further patentable distinctions over the prior art of record. To avoid burdening the record and in view of the clear allowability of Claims 1, 12, 20, 30, 38, 43, and 48, as described above, Applicants do not specifically discuss in this Response the patentable distinctions of Claims 2-5, 7-11, 13-19, 21-23, 25-29, 31-37, 39-40, 42, 44-45, 47, and 49-55. However, Applicants reserve the right to discuss these distinctions in a future Response or on Appeal. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 2-5, 7-11, 13-19, 21-23, 25-29, 31-37, 39-40, 42, 44-45, 47, and 49-55.

The Examiner rejects Claims 6, 24, 41, and 46 under 35 U.S.C. § 103(a) as being unpatentable over *Yamada* in view of *Chiu*, and further in view of U.S. Patent 6,084,892 to Benash, et al. ("*Benash*"). Claim 6 (which depends from Claim 1), Claim 24 (which depends from Claim 20), Claim 41 (which depends from Claim 38), and Claim 46 (which depends from Claim 43) depend from allowable independent claims and are allowable for at least this reason. In addition, Claims 6, 24, 41, and 46 recite further patentable distinctions over the prior art of record. To avoid burdening the record and in view of the clear allowability of Claims 1, 20, 38, and 43, as described above, Applicants do not specifically discuss in this Response the patentable distinctions of Claims 6, 24, 41, and 46. However, Applicants reserve the right to discuss these distinctions in a future Response or on Appeal. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 6, 24, 41, and 46.

Conclusion

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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